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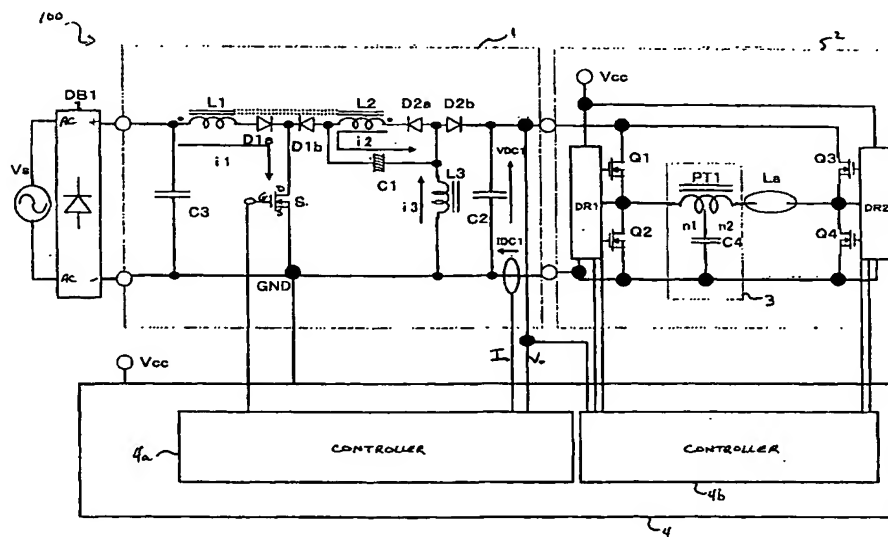
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(54) Title: DISCHARGE LAMP LIGHTING CONTROL DEVICE



(57) Abstract: A discharge lamp lighting control device (100) having a DC power converter, a power factor improving power con-  
verter (1), a polarity reversing circuit (2), a starter circuit (3), and a controller (4). The power factor improving power converter 1  
includes a switching device S, a power factor improver, and a power converter. The power factor improver operates to smooth a  
rectified voltage by storing energy in a first inductive device L1 and by discharging energy from a second inductive device L2, in  
which the first and second inductive devices are magnetically coupled together. The storing and discharging is performed by turning  
ON and OFF the switching device S. A predetermined DC voltage is converted by energy stored and discharged by a third inductive  
device L3 in response to the turning ON and OFF of the switching device S.



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## A. CLASSIFICATION OF SUBJECT MATTER

IPC(7) : H05B 41/16, 37/02.

US CL : 315/209r, 215, 223, 224, 242, 243, 244, 246, 247, 248, 291, Dig. 5, Dig. 7

According to International Patent Classification (IPC) or to both national classification and IPC.

## B. FIELDS SEARCHED

Minimum documentation searched (classification system followed by classification symbols)

U.S. : 315/209r, 215, 223, 224, 242, 243, 244, 246, 247, 248, 291, Dig. 5, Dig. 7

Documentation searched other than minimum documentation to the extent that such documents are included in the fields searched

Electronic data base consulted during the international search (name of data base and, where practicable, search terms used)

## C. DOCUMENTS CONSIDERED TO BE RELEVANT

Category *	Citation of document, with indication, where appropriate, of the relevant passages	Relevant to claim No.
A	US 5,598,326 A (LIU et al) 28 January 1997 (28/01/97), whole document	1-27
A	US 5,907,223 A (GU et al) 25 May 1999 (25/05/99) Figs. 4, 8-10, cols. 3-8.	1-27
A	US 6,034,489 A (WENG) 07 March 2000 (07/03/00), Figs. 2-8, cols. 8-12.	1-27
A	US 6,670,779 B2 (SHEN) 30 December 2003 (30/12/03), Fig. 3, cols. 4-6.	1-27

☐ Further documents are listed in the continuation of Box C.

☐ See patent family annex.

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